CONTENTS

Introduction

Symposium 1: Chairman, J.E. Butler (Iowa City, Iowa, U.S.A.). Immunoglobulin Isotypes, Structure and Function 1

The isotypic, allotypic and idiotypic heterogeneity of bovine IgG2.
J.E. Butler, H. Heyermann, M. Borca (Iowa City, Iowa, U.S.A.), M. Bielecka (Brinow, Poland) and L.V. Frenyo (Budapest, Hungary) 1

Isolation of genes encoding bovine IgM, IgG, IgA and IgE chains.
K.L. Knight and R.S. Becker (Chicago, U.S.A) 17

The application of hybridoma technology to the study of bovine immunoglobulins.
R.A. Goldsby (Amherst, Massachusetts, U.S.A.), S. Srikumaran (Lincoln, Nebraska, U.S.A.), A. Arulanandan, B. Hague, F.A. Ponce de Leon, M. Sevoian (Amherst, Massachusetts, U.S.A.) and A.J. Guidry (Beltsville, Maryland, U.S.A.) 25

The structure of bovine secretory component.
D. Beale (Cambridge, England) 37

The transfer of serum IgG1 antibody into the gastrointestinal tract in newborn calves.
T.E. Besser, T.C. McGuire and C.C. Gay (Pullman, Washington, U.S.A.) 51

Chicken immunoglobulins.
H. Ambrosius and D. Hadge (Leipzig, D.D.R.) 57

Characterization of a homogeneous paraprotein from a horse with spontaneous multiple myeloma syndrome.
R.K. Seide (Rootstown, Ohio, U.S.A.), R.M. Jacobs (Columbus, Ohio, U.S.A.), T.N. Dobbelstein (Youngstown, Ohio, U.S.A.) and J.M. Kehoe (Rootstown, Ohio, U.S.A.) 69

The subclass heterogeneity of pig IgG.
F. Franek (Prague, Czechoslovakia) 79

Symposium 2: Chairman, W.I. Morrison (Nairobi, Kenya). Markers of Immune System Cells 91

Lymphocyte antigens of sheep: Identification and characterization using a panel of monoclonal antibodies.
C.R. Mackay, J.R. Maddox and M.R. Brandon (Parkville, Victoria, Australia) 91

The ontogeny of various cell populations defined by monoclonal antibodies in the primary lymphoid organs of the sheep.
M. Miyasaka (Basel, Switzerland).....103
Phenotypic and functional characteristics of bovine T lymphocytes.
A.J. Teale, C.L. Baldwin, W.I. Morrison (Nairobi, Kenya), J. Ellis (Laramie, Wyoming, U.S.A.), N.D. MacHugh (Nairobi, Kenya).....113
Bovine mononuclear phagocytic cells: Identification by monoclonal antibodies and analysis of functional properties.
J.A. Ellis (Laramie, Wyoming, U.S.A.), W.I. Morrison, B.M. Godeeris and D.L. Emery (Nairobi, Kenya).....125
Phenotypic and functional characterization of pig lymphocyte populations.
J.K. Lunney (Beltsville, Maryland, U.S.A.) and M.D. Pescovitz (Minneapolis, Minnesota, U.S.A.).....135

Symposium 3: Chairman, B. Morein (Uppsala, Sweden). Modulation of Immune Response and Related Functions.....145
Adjuvants.
K. Dalsgaard (Lindholm, Denmark).....145
Potentiation of the immune response by immunization with antigens in defined multimeric physical forms.
B. Morein (Uppsala, Sweden).....153
Regulation of immunity by anti-idiotypic antibodies.
H. Wigzell (Stockholm, Sweden).....161
Lymphokines in the regulation of immune responses.
G.V. Alm (Uppsala, Sweden).....173
Bovine interleukin 2: Regulatory mechanisms.
N.S. Magnuson, A.G. Spies, M.S. Nissen, C.D. Buck, A.D. Weinberg (Pullman, Washington, U.S.A.), P.J. Barr (Emeryville, California, U.S.A.), J.A. Magnuson and R. Reeves (Pullman, Washington, U.S.A.).....183
Bovine interleukin 2: Cloning, high level expression and purification.
P.E. Baker (Seattle, Washington, U.S.A.).....193

Symposium 4: Chairman, M.R. Brandon (Parkville, Victoria, Australia). The Major Histocompatibility Gene Complex.....211
Structure and expression of class I MHC genes in the miniature swine.
D.S. Singer, R. Ehrlich (Bethesda, Maryland, U.S.A.), L. Satz (Buenos Aires, Argentina), W. Frels (Beltsville, Maryland, U.S.A.), J. Bluestone, R. Hodes and S. Rudikoff (Bethesda, Maryland, U.S.A.).....211
The human HLA-D region - A summary.
J. Trowsdale (London, England).....223

Biochemical and molecular analysis of sheep MHC class II molecules.
N.K. Puri, P.C. Scott, C.L. Choi and M.R. Brandon (Parkville, Victoria, Australia).....231
The MHC of the chicken, genomic structure, gene products and resistance to oncogenic DNA and RNA viruses.
M. Simonsen (Copenhagen, Denmark).....243
Effector and regulatory T cells involved in the immune response to allografts.
S.M. Stepkowski and W.R. Duncan (Halifax, Nova Scotia, Canada).....255

Symposium 5: Chairman, W.C. Davis (Pullman, Washington, U.S.A.). Gene Transfer Technology in Immunology.....267
Transgenic mice in immunological research.
R.M. Petters (Raleigh, North Carolina, U.S.A.).....267
Expression of rabbit IgA heavy chain genes in E. coli and in murine myeloma cells.
K.L. Knight, R.D. Schneiderman and R.C. Burnett (Chicago, Illinois, U.S.A.).....279
Transfection of genes encoding lymphocyte differentiation antigens: Applications in veterinary immunology.
P.A. Lalor and L.A. Herzenberg (Stanford, California, U.S.A.).....291
Progress on gene transfer in farm animals.
V.G. Pursel, C.E. Rexroad, D.J. Bolt, K.F. Miller, R.J. Wall (Beltsville, Maryland, U.S.A.), R.E. Hammer, C.A. Pinkert (Philadelphia, Pennsylvania, U.S.A.), R.D. Palmiter (Seattle, Washington, U.S.A.) and R.L. Brinster (Philadelphia, Pennsylvania, U.S.A.).....303

Symposium 6: Chairman, G.E. Roelants **(Franceville, Gabon). Advances in Immunology of Metazoan and Protozoan Infections**.....313
Nematode antigens in protection, diagnosis and pathology.
R.M.E. Parkhouse, N.M. Almond, Z. Cabrera and W. Harnett (London, England).....313
The role of antibody in natural resistance to African trypanosomiasis.
M. Pinder (Franceville, Gabon), F. Fumoux, A. Van Melick (Bobo-Dioulasso, Burkina Faso) and G.E. Roelants (Franceville, Gabon).....325
Immunity to eimeria infections.
M.E. Rose (Houghton, England).....333
Immunochemical studies on the antigens of Dirofilaria immitis.
S.A. Fuller (Mississauga, Ontario, Canada), M.M. Wong (Davis, California, U.S.A.) and J.G.R. Hurrell (Mississauga, Ontario, Canada)....345

Symposium 7: Chairman, A.J. Husband (Newcastle, New South Wales, Australia). Immunity at Mucosal Surfaces.....357
Perspectives in mucosal immunity: A ruminant model.
A.J. Husband (Newcastle, New South Wales, Australia).....357
The intestinal and mammary immune system in pigs.
H. Salmon (Nouzilly, France).....367
Synergism between antibody and neutrophils in the ruminant mammary gland.
D.L. Watson (Armidale, New South Wales, Australia).....389
Immune response of cattle to respiratory mycoplasmas.
C.J. Howard, L.H. Thomas and K.R. Parsons (Compton, England).....401
Immune response to dietary antigens and its influence on disease susceptibility in farm animals.
C.R. Stokes, B.G. Miller, M. Bailey, A.D. Wilson and F.J. Bourne (Bristol, England).....413
Development of nasal, fecal and serum isotype-specific antibodies in calves challenged with bovine coronavirus or rotavirus.
L.J. Saif (Wooster, Ohio, U.S.A.).....425

Symposium 8: Chairman, J.R. Duncan (Nepean, Ontario, Canada). New Trends in Immunodiagnostics.....441
Enzyme immunoassay: Observations on aspects of quality control.
P. Wright (Nepean, Ontario, Canada).....441
Rapid detection of viral-specific antibodies by enzyme-linked immunosorbent assay (ELISA).
S. Winston (Mississauga, Ontario, Canada), S. Fiscus, L. Hesterberg, T. Matsushita, M. Milbrand, J. Porter and Y. Teramoto (Fort Collins, Colorado, U.S.A.).....453

Symposium 9: Chairman, T.C. McGuire (Pullman, Washington, U.S.A.). Immunologically Mediated Disease and Immunodeficiency.....465
The immune response to viral antigens as a determinant of arthritis in caprine arthritis-encephalitis virus infection
T.C. McGuire (Pullman, Washington, U.S.A.).....465
Establishment of central nervous system infection by canine distemper virus: Breach of the blood-brain barrier and facilitation by antiviral antibody.
S. Krakowka (Baltimore, Maryland, U.S.A.) and M.K. Axthelm (Beaverton, Oregon, U.S.A.).....471

Aspects of the immunopathogenesis of flea allergy dermatitis in dogs.
R.E. Halliwell, J.F. Preston and J.G. Nesbitt (Gainsville, Florida, U.S.A.).....483
Immunologic reconstitution of foals with combined immunodeficiency.
L.E. Perryman, C.M. Bue, N.S. Magnuson (Pullman, Washington, U.S.A.), V.D. Mottivini (Albany, New York, U.S.A.), H.S. Ocho (Seattle, Washington, U.S.A.) and C.R. Wyatt (Pullman, Washington, U.S.A.).....495

Author Index.....509

Subject Index.....513